



Be Nice to Your Brain (🧠 A Brain Facts Story)
(4th Grade – 9-10 yrs.)
Game: Sleep...Don't Deprive Yourself
Group Activity



STORY CONNECTION-SLIDE 6 (Approx Time: 25-30 mins)

Another way that you can be nice to your brain is by getting the sleep that your brain needs. Sleep is important because not only does your brain get some rest from all the work that it does during the day when you are sleeping, but the brain also has some special chores to do while your body is sleeping.

Materials needed:

- Game board (included below)
- Game Space descriptions (included below)
- Hour Cards (included below)
- Memory Booster Cards (included below)
- One six-sided die or a small, closed box labeled 1-6
- Sleep Calculator sheet (included below)
- Sleep Deprivation video (optional) <https://www.youtube.com/watch?v=B8rQAFIESfc> (1:58)

If playing with Two Teams:

- Sticky notes in two colors
- Equipment to display game board

If playing with Multiple Groups:

- Small game pieces such as erasers, coins, buttons

Preparation needed:

- Determine how student(s) will play
 - Whole group and divide into two teams (*NOTE: directions are written for this type of play*)
 - Put student(s) into small groups and have multiple games played at one time
- Print and cut Hour Cards (several copies)
- Print and cut Memory Booster Cards
- *Optional:* Print or display game rules
- *Optional:* Print or display game space descriptions

****NOTE: If playing in multiple groups, you will need to print enough materials for each group (including the game board.****

Instructions:

1. In this activity, student(s) will play a game to learn about the importance of sleep and the dangers of sleep deprivation. They will also calculate the time they should be going to sleep.
2. Divide the student(s) into two teams.
3. Project the game board and go over the spaces to make sure everyone understands the spaces.
4. Assign each team a colored sticky note for a game piece to move around the board.
5. Explain to the student(s) how to play:
 - Team One rolls the die and moves that number of spaces.
 - The leader or Dream Catcher reads the description of the Game Space the team lands on.
 - This determines if the team gains or loses Hour Cards.
 - The goal of the game is to have the most Hour Cards at the end of the game.
 - Each team begins the game with two Hour Cards.
 - If a team lands on a Memory Booster space, they get a Memory Booster card which can add or delete hours from their team.
 - Teams take turns rolling the die and advancing their sticky notes around the board until one reaches the End space.
 - Then all players count their Hour Cards.
 - The team with the most hours of sleep is the winner.
6. Ask student(s) if they have any questions or need any clarification. Clear up any misunderstandings.
7. Play the game.
8. After the game is over, explain to the student(s) that they will now calculate their bedtime and sleep time.
9. Using the Sleep Calculator sheet below as a guide, have student(s) determine when they should be going to bed and how much sleep they get each night based on when they wake up.
NOTE: Student(s) aged 9-10 should be getting between 9-11 hours of sleep each night.
10. Discuss the results of their calculations by asking the following question:
 - Are they getting too little sleep, too much sleep, or just the right amount of sleep?
11. In closing, remind student(s) that sleep is important because not only does their brain get some rest from all the work that it does during the day when they are sleeping, but the brain also has some special chores to do while your body is sleeping. Therefore, getting enough sleep is so important for healthy brains





Sleep Deprivation Game Credit: <https://www.brainfacts.org/for-educators/for-the-classroom/2018/sleep-deprivation-game-081418>

Sleep Calculator Credit: <http://www.sleepforkids.org/html/calcs.html>



BrainFacts.org
Sleep Deprivation Game

GAME SPACES *(page 1 of 2)*

Caffeine 	Caffeine is the most widely used brain stimulant in the world. It comes in many forms, such as coffee, tea, energy drinks, and soda. It works by blocking the sleep-promoting molecule adenosine from bonding with receptors on your neurons. Lose 1 Hour Card.
Canceled Class	Woo hoo! A canceled morning class means more time to sleep in. Gain 1 Hour Card.
Fall Back 	When we set our clocks back an hour at the end of Daylight Saving Time, we gain time to sleep. Gain 1 Hour Card.
First Night in a Hotel	Sleep researchers at Brown University discovered what is known as the "first-night effect," which states that when you sleep in unfamiliar surroundings, only the left half of your brain is getting a good night's rest. Roll again.
Hypnic Jerk	The involuntary muscle spasm that occurs as a person is falling sleep (and is often accompanied by a feeling of falling) can be caused by stress, anxiety, fatigue, or caffeine. Lose a turn.
Insomnia	Insomnia is the inability to sleep. This sleep disorder can be caused by many things, including stress, travel, and caffeine. Lose 2 Hour Cards.
Left Pillow on a Plane	Oh no! You left your pillow on a plane. How will you sleep well? Lose 1 Hour Card.
Midnight Movie	Not getting a full night's sleep does more than make you cranky. Lack of sleep can lead to trouble forming long-term memories, increased anger, cerebral shrinkage, and slurred speech. Lose 1 Hour Card.
Narcolepsy	Formerly called "sleeping sickness," narcolepsy is a chronic sleep disorder that is characterized by excessive sleepiness during the day and, in extreme cases, sudden bouts of sleep that occur several times per day. Thus people with narcolepsy can literally fall asleep at any time. Roll again.
Night Terrors 	Night terrors usually begin when children are 3 to 6 years old and disappear during adolescence. Children in the throes of a night terror scream and cry. Their eyes are open, and they may say incoherent things while gesturing emphatically. Unlike nightmares, some details of which people can clearly recall once they awake, night terrors are characterized by confusion upon awakening and the lack of any recall of elaborate dream imagery. Lose 2 Hour Cards.
Noisy Neighbor	Music from next door kept you up all night? Without a good night's sleep, you could suffer from poor memory and decision-making. Give 1 Hour Card to the player on your left.
Red Eye Flight 	Late night flights mean you are sleeping in an unfamiliar space and disrupting your sleep cycle. Roll again.

GAME SPACES *(page 2 of 2)*

Sibling Steals Your Pillow



Give 1 Hour Card to the player on your right.

Sleep Paralysis

Sleep paralysis is a temporary inability to speak or to move while falling asleep or waking up—a highly disconcerting experience, especially when the person experiencing it doesn't know its cause. **Lose a turn.**

Sleep Over

Jump to the space of the player in front of you. Do not follow the instructions on that space.

Slept Through the Night



Congratulations! You slept at least 8 hours and passed through all four stages of sleep. **Roll again.**

Somnambulism

Sleep walking during non-REM sleep affects about one-third of children. About 3 percent walk during sleep at least once per month. **Move back one space.**

Somniloquy

Sleep talking can happen during either REM or non-REM sleep. The words are generally so poorly articulated and the sentences so meaningless that anyone who hears them will be at a loss to interpret them. Those utterances that occur during REM sleep do, however, tend to be somewhat more intelligible. **Take 1 Hour Card from the player to your left.**

Spring Forward



When we set our clocks forward an hour for Daylight Saving Time, we lose sleep. **Lose 1 Hour Card.**

Summer Vacation



Finally, no more early morning classes. Time to sleep in! **Gain 2 Hour Cards.**

Too Much Screen Time

Blue light, like the light wavelengths emitted by our screens, leads us to believe it is morning or daytime. Looking at a screen before bed keeps you awake. **Lose 1 Hour Card.**

Use a Sleep App to Determine Your Sleep Cycle

Sleep behavior is defined by: reduced motor activity; diminished responses to external stimuli; posture (lying down with eyes closed); and relatively ready reversibility. These four criteria distinguish sleep from coma and hibernation. Using an app to track your sleep pattern can help you make adjustments that will lead to better sleep. **Gain 1 Hour Card.**

Woke Up in Stage 1 of Sleep

Non-REM sleep begins when you first lie down and close your eyes. As you fall asleep, the rapid beta waves of wakefulness are replaced by the slower alpha waves of relaxation with your eyes closed. Soon, even slower theta waves begin to emerge. Though your reactions to stimuli from the outside world diminish, Stage 1 is still the phase of sleep from which it is easiest to wake someone up. **Gain 1 Hour Card.**

You pull an all-nighter to study.

Lose 1 Hour.

You remember the shortcut
to school.

Gain 1 Hour.

You remember your best
friend's birthday.

Gain 1 Hour.

You complete a full sleep cycle.

Gain 1 Hour.

You drink a cup of coffee
in the afternoon.

Lose 1 Hour.

You read a book instead
of looking at your phone
before bed.

Gain 1 Hour.

You participate in a sleep study.

Gain 2 Hours.

You find your misplaced wallet.

Gain 1 Hour.

You get an A on your latest quiz.

Gain 1 Hour.

You remember your
parent's work number.

Gain 1 Hour.

You keep picking fights with your younger sibling.

Lose 1 Hour.

You feel very friendly and offer to buy your friend lunch.

Gain 1 Hour.

You skip the soda at lunch.

Gain 1 Hour.

You remember all the countries for your geography test.

Gain 2 Hours.

You remember the punchline to your favorite joke.

Gain 2 Hours.

You remember where your parent parked their car at the store.

Gain 1 Hour.

Studying for your biology test seems easier than normal.

Gain 1 Hour.

You slur your words during your class presentation.

Lose 1 Hour.

You feel very relaxed all day.

Gain 2 Hours.

You can't remember the last digit of your locker combination.

Lose 2 Hours.



+1 HOUR



+1 HOUR



+1 HOUR



+1 HOUR



+1 HOUR



+1 HOUR



+1 HOUR



+1 HOUR



+1 HOUR



+1 HOUR

SLEEP CALCULATORS



LEARN ABOUT YOUR SLEEP SO YOU CAN GET THE RIGHT AMOUNT OF SLEEP EACH NIGHT. USE THESE HANDY **SLEEP CALCULATORS!**

from
sleepforkids.org

BEDTIME CALCULATOR

An 8 year-old needs **10 to 11 hours** of sleep each night. Use this calculator to find a **Bedtime** that will let you get 10 hours of sleep.



1. Mark the time you need to get up in the morning.
2. Count backward 10 hours.
3. Mark that time. That is your **Bedtime**, the time you should go to bed to get 10 hours of sleep.
4. Write your Bedtime in the space on the Bedtime Calculator.

SLEEP TIME CALCULATOR

Use this calculator to learn how many hours you slept in one night, or your **Sleep Time**.



1. Mark the time you went to sleep.
2. Mark the time you woke up.
3. Count the number of hours between the time you went to sleep and the time you woke up.
4. The number of hours you slept is your **Sleep Time**. Write your Sleep Time in the space on the Sleep Time Calculator.

